IN THE SPECIFICATION

Please replace paragraph [0007] with the following paragraph:

In accordance with another aspect of the present technique, a pelton turbine system ~~comprising~~includes a runner mounted for rotation to drive a generator[[, and a]]. A combination of needle valve injector ~~assembly~~ assemblies and high efficiency injector ~~assembly~~ assemblies are disposed alternately with respect to a distributor. The high efficiency injector assembly comprises a high efficiency valve to regulate the flow of water through the injector assembly. The high efficiency injector assembly and the needle valve injector assembly are controlled by individual control modules, which are in turn [[is]] coupled to a central control system to regulate the overall flow of the water released to drive the turbine.

Please replace paragraph [0020] with the following paragraph:

The distributor 26 acts a common manifold for transferring the water 16 from the penstock 18 to the needle valve injector assemblies 28. In addition to the needle valve injector assemblies 28, one or more high efficiency injector assemblies 36 are fluidly coupled to the distributor for receiving a portion of the water flow. In certain exemplary embodiments, the turbine unit 20 includes at least two high efficiency injector assemblies 36 having identical sizes. The high efficiency injector assemblies 36 each include a high efficiency valve 38 intended to provide completely or substantially unimpeded flow of water to the runner 32 in a manner that produces a higher quality water jet. Accordingly, each high efficiency injector assembly 36 produces a higher quality water jet 40 that is directed to the runner 32 to aid in forcing rotation of the runner. The jets 34 and 40 from the different injector assemblies effectively impact buckets or blades 42 of the runner to produce torque that results in the desired rotation of the runner under load conditions.

Please replace paragraph [0021] with the following paragraph:

The flow of water 16 is controlled through the plurality of needle valve injector assemblies 28 and the plurality of high efficiency injector assemblies. In the illustrated embodiment, control modules 44 and 46 are coupled to the needle valve injector assemblies 28 and to the high efficiency injector assemblies 46, respectively, to regulate opening and closing of the valves of each injector assembly. Thus, as described in greater detail below, the flow rate of water issuing from each injector assembly, and the total amount of water through the turbine can be controlled and modulated. In general, a control module 44 and 46 will be provided immediately adjacent to each individual injector assembly, as described below. The various control modules 44 and 46, then, are coupled to a central control unit 48 that regulates operation of the valves of all injectors and coordinated their opening and closing. As will be appreciated by those skilled in the art, the control modules 44 and 48 will typically include actuators, such as hydraulic cylinders or motors that respond to and are actuated by circuitry within the control modules. The central control unit 48 will generally include digital circuitry configured to implement predefined control regimes, and to apply control signals to the circuitry of each control module. In certain exemplary embodiments, the central control unit 48 includes circuitry having a programmed microprocessor. The control modules and central control unit may permit operator intervention and control, and will typically include one or more application specific or general purpose computers or processors, as well as supporting circuitry, memory, and so forth.

Please replace paragraph [0024] with the following paragraph:

The flow rate of water from the at least one needle valve injector assembly 28 is different from the flow rate of water from the at least one high efficiency injector assembly 36. The flow rate of water from the high efficiency injector assemblies 36 may be greater or lesser than the flow rate of water from the needle valve injector assemblies

28. The flow path of the at least one needle valve injector assembly 28 is different from a flow path of the at least one high efficiency injector assembly 36. In certain exemplary embodiments, an effective cross-sectional area of the at least one needle valve injector assembly 28 is smaller than an effective cross-sectional flow area of the at least one high efficiency injector assembly. In particular, the present technique may call for as few as a single needle valve injector assembly to regulate flow, or as few as a single high efficiency injector assembly to provide more efficient delivery of a portion of the overall flow due to the fully open or relatively unimpeded flow path of the spherical valve in the high efficiency injector assembly 36.

Please replace paragraph [0031] with the following paragraph:

Thus, one or more needle valve injector assemblies 28 of an existing Pelton turbine can be replaced with a high efficiency injector assembly 36. A combination of the needle valve injector assembly 28 and the high efficiency injector assembly 36 leads to an optimal configuration of the injector designs in a Pelton turbine unit. Hence, the overall efficiency of the Pelton turbine can be improved. As an example, in a six-injector Pelton Turbine, 3 high efficiency injector assemblies 36 comprising [[of]] a spherical valve 38 can replace 3 of the 6 needle valve injector assemblies 26. These 3 high efficiency injectors 38 will operate at close to 100% efficiency when the spherical valves 38 are fully open and thus improve the overall efficiency of the turbine.

Please replace paragraph [0032] with the following paragraph:

FIG. 6 is a flow chart illustrating an exemplary method of steady state operation of a Pelton turbine having injector assemblies of the types described above. The method, designated by the reference numeral 78, begins with introduction of water through an intake system at step 80. As indicated at step 82, water is then directed to the distributor. As then indicated at step 84, the needle valve injector assemblies 28 and the high

efficiency injector assemblies 36 are set to provide the desired flow of water. Total water flow to the runner from the distributor is delivered through a combination of needle valve injector assemblies 28 and the high efficiency injector assemblies 36, driving the runner, as indicated at step 86. In certain exemplary embodiments, the method includes simultaneously regulating flow of water through the needle valve of the at least one needle valve injector assembly 28 and the spherical valve of the at least one high efficiency injector assembly 36 to direct the flow of water from the distributor to the runner. The movement of the runner in turns rotates the rotatable shaft of the runner, which is coupled to the generator. Hence, electricity is produced by the generator, as indicated at step 88. The power is conditioned at step 90, and finally is applied to the grid, as indicated at 92. Based on the requirement at the grid (e.g. frequency, current and voltage), feedback is provided to control the flow of water by regulating the injector assemblies, as indicated at step 94.